THE · RICE INSTITUTE

PRELIMINARY ANNOUNCEMENTS · FOR THE SECOND ACADEMIC YEAR BEGINNING · SEPTEMBER TWENTY-FOURTH NINETEEN HUNDRED · AND THIRTEEN

HOUSTON, TEXAS

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THE RICE INSTITUTE

A UNIVERSITY OF

LIBERAL AND TECHNICAL LEARNING

FOUNDED BY
WILLIAM MARSH RICE
AND DEDICATED BY HIM TO
THE ADVANCEMENT OF LETTERS
SCIENCE AND ART

EDGAR ODELL LOVETT
PRESIDENT

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CALENDAR

1913	
SEPTEMBER 24-27	*Examinations and Registration*
SEPTEMBER 29	*Lectures and Recitations of the Second Session Begin*
NOVEMBER 27	*Thanksgiving Day*
DECEMBER 20	*Autumn Quarter Ends*
1914	
JANUARY 2	*Winter Quarter Begins*
FEBRUARY 22	*Washington's Birthday*
MARCH 2	*Texas Independence Day*
MARCH 14	*Founder's Day*
MARCH 21	*Winter Quarter Ends*
MARCH 23	*Spring Quarter Begins*
APRIL 21	*San Jacinto Day*
JUNE 10	*Spring Quarter Ends*

FURTHER DETAILS OF THE CALENDAR WILL APPEAR IN THE ANNUAL CATALOGUE

THE RICE INSTITUTE

THE NAME

The new institution bears the name of the founder, the late William Marsh Rice. It aspires to university standing of the highest grade. Dedicated to the advancement of literature, science and art, the educational programme of liberal and technical learning now being developed may justify the designation "Institute" as representing the functions of a teaching university and, at least in some of its departments, those of the more recent research institutions established in this country and abroad.

BRIEF HISTORICAL SKETCH

The Rice Institute was incorporated in 1891 as the William M. Rice Institute for the Advancement of Literature, Science and Art, under a liberal charter granting a self-perpetuating board of seven life trustees great freedom in the subsequent organization of a non-political and non-sectarian educational institution in the city of Houston, Texas. At present this board of trustees consists of the following members: James Addison Baker, Chairman; James Everett McAshan, Vice-Chairman; Benjamin Botts Rice, Secretary-Treasurer; William Marsh Rice, Jr.,

Cesar Maurice Lombardi, Edgar Odell Lovett, and John Thaddeus Scott. At the expressed wish of the founder the elaboration of his plans was postponed until after his death, which occurred in 1900 under such circumstances as to involve his estate in long years of litigation. When the trustees came into possession of the full resources of the foundation, which now amount to more than ten million dollars, they invited Dr. Edgar Odell Lovett, Professor in Princeton University, to assist them in formulating and executing the educational programme of the Institute. The President thereupon undertook a year's journey of study which extended from England to Japan; on the completion of this preliminary investigation, a most suitable site of three hundred acres was secured, and to Messrs. Cram, Goodhue and Ferguson, of Boston, was committed the task of designing a general architectural plan consistent with the programme which had been adopted for the Institute.

In 1911, on the seventy-fifth anniversary of Texas Independence, the corner-stone of the Administration Building was laid by the trustees. This building, the Mechanical Laboratory of the Engineering Quadrangle, the Power House, and the first Residential Hall for Men have in the meantime been completed. The initial building schedule includes also special laboratories for instruction and investigation in phys-

ics, chemistry and biology, and in the application of these sciences to the arts of industry and commerce. In the preparation of these preliminary laboratory plans the Institute has enjoyed the coöperation of an advisory committee consisting of Professor Ames, director of the physical laboratory of Johns Hopkins University; Professor Conklin, director of the biological laboratory of Princeton University; Professor Richards, chairman of the department of chemistry, Harvard University; and Professor Stratton, director of the National Bureau of Standards. The final plans for the Physics Laboratory and Lecture Amphitheatre have been completed under the direction of Professor Wilson of the permanent staff of the Institute, and the contract for the construction of these buildings has been awarded.

The actual work of instruction of the first academic year began on the twenty-third day of September, 1912, the anniversary of the death of the founder. In the presence of the trustees of the Institute, members of its initial teaching staff, and representative citizens of the community, the first class of students was received in the faculty chamber of the Administration Building with appropriately impressive ceremonies on September the twenty-sixth. The scholastic work of the first academic year was limited to a single class of Freshmen of a standard of preparation as high as the best public

and private high schools are capable of producing. The young men and young women attended lectures and recitations in separate divisions. At regular stated intervals each lecturer and instructor received the students both individually and in small groups for preceptorial work and conference. Each regular student was required to carry five subjects of three formal exercises per week.

In the early autumn an academic festival in observance of the formal opening of the Institute was held under most favorable conditions of weather, most generous coöperation of the community and commonwealth, and the heartening encouragement of several hundred scholars and scientists who came to Houston to assist in the launching of the new university. Chief among these distinguished representatives of life and learning were the twelve foreign savants who had consented to participate in the inaugural programme by preparing series of lectures in the liberal humanities of philosophy, history, letters and art, and in the fundamental sciences of mathematics, physics, chemistry and biology. A complete account of the proceedings occupying the four days devoted to this celebration is now being prepared for publication in permanent form. In these volumes will be published in full the inaugural lectures of Professor Rafael Altamira y Crevea, of Madrid, Spain; Professor Emile Borel, of Paris, France;

Senator Benedetto Croce, of Naples, Italy; Professor Hugo de Vries, of Amsterdam, Holland; Professor Sir Henry Jones, of Glasgow, Scotland; Privy Councillor Baron Dairoku Kikuchi, of Tokyo, Japan; Professor John William Mackail, of London, England; Privy Councillor Professor Wilhelm Ostwald, of Gross-Bothen, Germany; the late Professor Henri Poincaré, of Paris, France; Professor Sir William Ramsay, of London, England; Professor Senator Vito Volterra, of Rome, Italy; Professor Carl Störmer, of Christiania, Norway. There will also appear the responses from American and foreign universities and scientific societies to the invitation of the Institute; the addresses of Governor Colquitt, Chief Justice Brown of Texas, Bishop Gailor of Tennessee, the inaugural ode of Dr. Henry van Dyke of Princeton and the dedication sermon by Dr. Charles F. Aked of San Francisco; together with the addresses delivered by the presidents or other official representatives of Amsterdam, Glasgow, London, Oviedo, Paris, Rome, Baylor, Chicago, Columbia, Lehigh, Princeton, Texas, Vanderbilt and Virginia universities; and a variety of other literary and artistic performances which are not easily classified in so brief a résumé.

THE STAFF OF THE INSTITUTE

For the staff of the Institute the best available instructors are being sought in the hope of assembling in Houston a group of

unusually able scientists and scholars through whose productive work the new university should speedily take a place of considerable importance among the established institutions of the country. Its university programme is being begun rather more seriously at the science end but there will also be developed facilities for elementary and advanced courses in the so-called humanities, thereby enabling the Institute to offer both the advantages of a liberal general education and those of special and professional training. Of those who have been selected for positions on the staff it is possible to announce the following appointments, the names appearing in alphabetical order:

Philip Hechman Arbuckle, B. A. (Chicago), of Georgetown, Texas; Director of Athletics in Southwestern University; to be Instructor in Athletics.

Stockton Axson, M. A. (Wesleyan), Litt. D. (Pittsburgh), of Princeton, New Jersey; formerly of the University of Vermont and of Adelphi College; Professor of English Literature in Princeton University; to be Professor of English Literature.

Thomas Lindsey Blayney, M. A. (Centre College), Ph. D. (Heidelberg), of Danville, Kentucky; History of European Literature and the History of European Art in Central University of Kentucky; to be Professor of German.

Percy John Daniell, M. A. (Cambridge), of

Liverpool, England; Senior Wrangler and Rayleigh Prizeman of the University of Cambridge; Lecturer in Mathematics at the University of Liverpool; to be Assistant Professor of Applied Mathematics.

William Franklin Edwards, B. Sc. (Michigan), of Houston, Texas; formerly Instructor in the University of Michigan, and later President of the University of Washington; to be Lecturer in Chemistry.

Griffith Conrad Evans, Ph. D. (Harvard), of Rome, Italy; Sheldon Fellow of Harvard University; to be Assistant Professor of Pure Mathematics.

Albert Léon Guérard, B. A. (Paris), Agrégé de l'Université de France, of Palo Alto, California; formerly Junior Professor of French Literature and Examiner in History, State Normal School, Paris; later Instructor in the Romanic Languages at Williams College; Associate Professor of French in the Leland Stanford Junior University; to be Professor of French.

Arthur Llewellyn Hughes, B. A., D. Sc. (Cambridge), of Cambridge, England; Research Scholar of Emmanuel College and MacKinnon Student of the Royal Society of London, engaged in scientific work at the Cavendish Laboratory of Cambridge University; to be Assistant Professor of Physics.

Julian Sorell Huxley, M. A. (Oxford), of Ox-

ford, England; Newdigate Prizeman of the University of Oxford; Lecturer in Biology in Balliol College, and Inter-Collegiate Lecturer in Oxford University; to be Assistant Professor of Biology.

Francis Ellis Johnson, B. A., E. E. (Wisconsin), of Houston, Texas; recently with the British Columbia Electric Railway Company; to be Instructor in Electrical Engineering.

Edgar Odell Lovett, Ph. D. (Virginia and Leipsic), LL. D. (Drake and Tulane), of Houston, Texas; formerly Professor of Mathematics in Princeton University, and later Head of the Department of Astronomy in the same institution; President of the Institute; to be Professor of Mathematics.

John Thomas McCants, M. A. (Virginia and Yale), of Houston, Texas; formerly Scholar at the University of Virginia, and University Fellow of Yale University; Secretary to the President of the Institute; to be Instructor in English.

William Ward Watkin, B. Sc. (Pennsylvania), M. A. I. A., of Houston, Texas; formerly Scholar in Architecture at the University of Pennsylvania; local representative of Cram, Goodhue and Ferguson, the supervising architects of the Institute; to be Instructor in Architecture.

Harold Albert Wilson, F. R. S., D. Sc. (London), of Montreal, Canada; Fellow of Trinity

College, Cambridge University; formerly Professor in King's College, London; Research Professor in McGill University; to be Professor of Physics.

SUBJECTS OF INSTRUCTION DEGREES

As foreshadowed in the organization of the staff of the Institute the subjects in which instruction will be provided as rapidly as possible are mathematics, physics, chemistry, biology, engineering, architecture, ancient languages, modern languages, history and politics, philosophy and psychology, economics and sociology, and art and archaeology. The programmes of study are being so arranged as to offer a variety of courses leading after four years of undergraduate work to bachelor's degrees in arts, in science, in letters, and in their applications to the several fields of engineering, domestic arts, and other regions of applied science. Extensive general courses in the various domains of scientific knowledge will be available, but in the main the programmes will consist of subjects carefully coördinated and calling for considerable concentration of study. For the advanced degrees Master of Arts, Doctor of Philosophy, and Doctor of Engineering, every facility will be afforded properly qualified graduate students to undertake lines of study and research under the direction of the Institute's resident and visiting professors.

None but Freshmen were admitted during the first academic year. For the coming year a similar policy will be followed by receiving only Freshmen and Sophomore candidates. Among the courses which will be available for these students the following may be mentioned: advanced algebra and theory of equations; elements of architecture; history of architecture; biology, a general introductory course; special course in zoology; differential and integral calculus together with the elements of differential equations; general chemistry, elementary and advanced, including laboratory work in qualitative and quantitative analysis; architectural drawing, elementary and advanced; free hand drawing and sketching; mechanical drawing; English, a course in composition and expression; English literature, an introductory course, and also one of more special character on the nineteenth century; French, an introduction to the language; a course in French literature for English readers; history of French civilization in the nineteenth century; analytical geometry of the plane and space; descriptive geometry; synthetic solid geometry; an elementary course in the German language; a more advanced course in the German language and literature; German idealism in politics, literature and art; analytical mechanics; elements of machine design; general courses in physics including sound, light, heat, electricity and

magnetism; special courses in electricity and thermodynamics; field-work and elementary surveying; trigonometry of the plane and sphere.

This list of undergraduate courses will be materially supplemented during the year. As has already been intimated in this circular it is by no means the intention to limit the work of the institution to undergraduate studies. As a matter of fact post-graduate courses are already offered in the following subjects: biology, English, French, German, mathematical analysis, applied mathematics, celestial mechanics, experimental and mathematical physics.

Furthermore both for the academic community and for a wider public in the city systematic university extension courses in letters and science are being arranged for the coming academic year.

LIBRARY

Temporary quarters for the Library of the Institute have been provided on the second floor of the Administration Building. In its initial equ pment the policy is being followed of providing only such books as are necessary to supplement the courses of instruction and to support the independent investigations of the staff and advanced students. In this manner a high degree of efficiency becomes possible at the very beginning of the Library's existence. Moreover, for works of general and more popular interest the shelves of

the Carnegie Library of Houston are accessible to all members of the Institute.

LABORATORY INSTALLATION

The equipment for work in physics and chemistry is at present temporarily housed in the mechanical building. For chemistry there has been set aside on the second floor space for a students' laboratory, a lecture room fitted for purposes of instruction, and two chemical supply rooms. The laboratory and lecture room are completely equipped with new and approved apparatus, much of which has been imported. These quarters will be occupied until a permanent building has been erected for chemistry. For physics three rooms have been fitted up as a lecture room, an elementary teaching laboratory, and a workshop and research laboratory respectively. The lecture room has seats for about ninety students, and is provided with a lecture table to which direct and alternating currents, gas, water and steam are applied. A Bausch and Lomb convertible balopticon is provided for projection of slides and experiments. A large amount of lecture apparatus has been ordered from various firms in the United States,England and Germany, and a considerable part of this has already arrived. The collection of lecture apparatus will include all the latest forms of demonstration apparatus for experiments on mechanics, sound, light, heat, electricity and magnetism. The workshop in which

a machinist and a glassblower are now employed is fitted up for the repair and manufacture of physical apparatus. Many pieces of apparatus for use by the students have already been made in this shop.

The new Physics Laboratory for which the contract has been awarded will be built upon the north side of the academic court adjoining the Administration Building and connected to it by continuing the present cloister. The Physics Laboratory proper will be a two-story building, 275x56 feet, and will be connected with a large Lecture Amphitheatre, 121x72 feet. The Physics Laboratory will contain upon the first floor two class rooms for 120 students each, two advanced laboratories, two offices and the library of this department. The building is designed entirely for the use of the physics department of the Institute, but the west end of the building will be used by the department of electrical engineering for its temporary quarters. On the second floor of this building will be two elementary laboratories of approximately 3500 square feet each, two lecture rooms for 125 students each, one preparation room for these lecture rooms, together with offices and research and balance rooms. The amphitheatre wing will have the large lecture hall seating 320 people, arranged with the seating properly elevated to command a 28 foot lecture table. This wing will also have one large workshop, five research

rooms, two dark rooms, one liquid air room, one battery room, and two constant temperature rooms. All laboratories, lecture rooms and research rooms will be provided with individual service for the students of gas, water, steam, compressed air, vacuum, and both direct and alternating currents of electricity. The building will be of brick and marble, corresponding in design to the style as defined in the Administration Building, but of a simpler character, and expressing its purpose as a laboratory building. The plans for its construction have been prepared by the supervising architects of the Institute.

REQUIREMENTS FOR ADMISSION

Candidates for admission to the Institute who present satisfactory testimonials as to their character will be accepted either upon successful examination in the entrance subjects or by certificate of graduation from an accredited public or private high school. The standard requirements for matriculation are determined by the system of units given below. A unit represents a course of study pursued five hours a week for an academic year. Fourteen such units are required for entrance in full standing to the Freshman class of the Institute. A candidate offering twelve units may be accepted with conditions, but all deficiencies must be removed before the

student will be recognized as a candidate for any degree.

From the following list every candidate will be required to present three units in English, two and one-half units in mathematics, two units in history, and three units in foreign languages. For the present, in the case of mature candidates whose preparation has not been adequate, compliance with the requirements in foreign languages may be temporarily deferred, but every such candidate will be expected to remove all language conditions within two years.

LIST OF SUBJECTS WITH VALUES IN UNITS

Botany 1; Chemistry 1; English (Reading and Practice 2, Study and Practice 1); French (Elementary 2, Intermediate 1); German (Elementary 2, Intermediate 1); Greek (Grammar and Elementary Prose Composition 1, Xenophon 1, Homer —*Iliad*, Books I-III 1); History (Ancient 1, Mediaeval and Modern 1, English 1, American 1); Latin (Grammar, Elementary Prose Composition and Caesar 2, Cicero 1, Vergil 1); Mathematics (Algebra 1½, Plane Geometry 1, Solid Geometry ½, Trigonometry ½); Spanish (Elementary 2, Intermediate 1); Physics 1; Physical Geography ½; Physiology ½; Zoology 1. Substitutes for certain of these subjects may be considered in individual cases.

The terms of admission to the Institute are based on the recommendations of the Carnegie

Foundation for the Advancement of Teaching as expressed in the Documents of the College Entrance Examination Board. Complete information with respect to further details of these requirements will be forwarded by the Institute to any candidate upon receipt of a request addressed to the Office of the President.

SCHOLARSHIPS AND FELLOWSHIPS

While seeking to develop its students in character, in culture and in citizenship, the Rice Institute will reserve for scholarship its highest rewards and in particular for evidences of creative capacity in productive scholarship. To encourage this devotion to learning a series of undergraduate scholarships and graduate fellowships will be devised to be awarded preferably to those honour students who have been in residence at the Institute for at least one year. Moreover, the varied opportunities for self-help in a growing institution in a large city should aid in enabling any young man of determination to earn his education in a thoroughly democratic college community. There may thus be realized the founder's desire that the advantages which his philanthropy would make possible should be brought within the reach of the promising student of slender means.

Furthermore, the Institute would interpret in a very large way its dedication to the advancement of letters, science and art. It would not

only look to the employment of these disciplines in the development of the life of the individual and in that of the race, but it would also play its part in the progress and enlargement of human knowledge by the contributions of its own resident professors and scholars. Accordingly there should always be associated with the staff of the Institute a group of advanced students in training for careers both as teachers and researchers: with this end in view graduate fellowships will be awarded from time to time to gifted degree-bearing students of the Institute or other educational foundations of similar standing.

EXPENSES

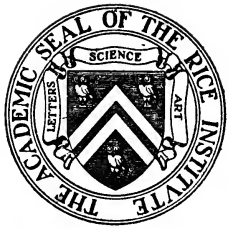
There will be no charge for tuition and no fees for registration or examination in the Institute. A small deposit will be required to cover possible breakage in the laboratories and losses from the libraries; the balance from this contingent fee is, of course, returnable at the close of the session.

ARRANGEMENTS FOR RESIDENCE

Rooms in the Residential Hall for Men completely furnished exclusive of linen, together with table board at the Institute Commons will be available for twenty dollars a month of four weeks. For both single and double rooms the rental will be uniform without regard to their location, and they will be let in the order of applications received. Diagrams showing the floor plans

will be sent on request to anyone who may be interested. Accommodations for the residence of young women on the university grounds will not be offered during the coming year. The Residential Hall for Men is of absolutely fireproof construction, heated by steam, lighted by electricity, cleaned by vacuum apparatus, and equipped with the most approved form of sanitary plumbing, providing adequate bathing facilities on every floor.

The general plan for the improvement of the site of the Institute calls for a number of playing and exhibition fields in the vicinity of the residential groups. In fact the wide expanse of the campus affords abundant space for every variety of physical exercise. A determined effort will be made to systematize and make general a sane devotion to out-door sports in climatic conditions which render athletics and open-air gymnastics profitably possible the whole year round. The daily time-table of each student will include a definite period under the instructor of athletics. Similarly with a view to developing every student in the manly art of self-defense in oratory and disputation there have been appointed, in the South Tower of the first Residential Hall for Men, halls for two literary and debating societies, whose activities should supplement the work of certain chairs under the faculty of letters.


THE ACADEMIC SEAL OF THE RICE INSTITUTE
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